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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,589	05/29/2001	Shinpei Oono	DAIN:312D	4628

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PARKHURST & WENDEL, L.L.P.  
1421 Prince Street, Suite 210  
Alexandria, VA 22314-2805

EXAMINER

HECKENBERG JR, DONALD H

ART UNIT PAPER NUMBER

1722

DATE MAILED: 07/23/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/865,589	OONO ET AL.
	Examiner Donald Heckenberg	Art Unit 1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on May 9, 2002.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 7 and 8 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 7 and 8 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. 08/429,218.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that

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was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno (US 5,415,536; previously of record) in view of Nied et al. (US 5,290,490; previously of record).

Ohno teaches an apparatus for forming a pattern onto an article during the injection molding thereof, comprising feed means that feeds a pattern-bearing film to a molding position (see fig. 1) where a male mold (1) and a female mold (2) are opposed, a heating board (9) that heats the pattern-bearing film so as to soften it, the heating board having a heating surface and being movable into and away from a space between the male mold and the female mold (as shown in fig. 1), transfer means that transfers the pattern-bearing film to an internal surface of the female mold so as to contact the pattern-bearing film with the internal surface (as shown in fig. 7), closing means that causes the mold and female mold thereon to approach each other to form a closed molding cavity (as shown in fig. 15), and a resin injection device (5) that injects a molten resin into the cavity to form a molded article to adhere the pattern-

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bearing film to the surface of the article. Ohno further teaches a heating wire (24) within the heating board to generate the heat, and the heating board to be arranged in a vertical direction (as shown in fig. 1).

Ohno fails to teach the heating board to be divided into a plurality of independently controlled heating blocks with the blocks being arranged in one line so that one heating block is disposed adjacently above another heating block.

Nied teaches an apparatus for the differential heating and thermoforming of a polymer sheet, wherein the heater is divided into a plurality of independently controlled segments (24) comprising heating blocks in multiple lines (fig. 1) for the purpose of differentially heating different segments of the polymer sheet (see col. 2, lns. 39-50, col. 4, lns. 26-29 & 36-41, col. 6, lns. 13-16).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Ohno as such to have the heating board divided into a plurality of heating blocks in at least one line because this would have allowed for the differential heating of different areas of the film as suggested by Nied. By dividing the heating board of Ohno into a plurality of blocks as suggested by Nied, the resulting heating board would thereby

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have heating blocks arranged in a vertical direction with one heating block disposed adjacently above another block (note Ohno teaches the heating board to be placed in a vertical direction as shown in fig. 1).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno and Nied as applied to claim 7 above, and further in view of Chapman (US 5,423,669; previously of record).

Ohno and Nied teach the apparatus as described above. Ohno and Nied fail to teach the use of temperature sensors to monitor the temperature of each heating block.

Chapman teaches an apparatus for thermoforming film including a heating unit (38) which has a temperature sensor for monitoring the heat imparted to the film and to adjust the heater accordingly (col. 4, lns. 19-30).

It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Ohno and Nied as such to have provided the heating blocks with a temperature sensor because this would have allowed for the monitoring of the heat imparted to the film and thereby better control the heating as suggested by Chapman.

Given the teaching of Ohno and Nied for the differential heating of different areas using independent heating blocks, it further

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would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have used temperature sensors at each block to monitor the heat imparted to the film at each independent block because the temperature to be generated at each block is different. Note that such a modification requires the duplication of a known part, a temperature sensor, for the multiplied effect of monitoring the temperature at different points. Generally, the duplication of a known part for a multiplied effect has no patentable significance unless it can be shown that there is a new and unexpected result. See In re Harza, 274 F.2d 669, 124 USPQ 378 (Cust. & Pat. App. 1960); St. Regis Paper Co. v. Bemis Co., 549 F.2d 833, 193 USPQ 8 (7th Cir. 1977).

6. Applicant's arguments filed May 9, 2002 have been fully considered but they are not persuasive.

Applicant argues that the references of Ohno and Nied do not teach or suggest the invention as recited in claim 7 because Ohno and Nied do not teach a plurality of heating blocks in one line.

Claim 7 recites "An apparatus...comprising...a heating board...wherein (1) said heating board is divided into a plurality of heating blocks, each of said blocks independently

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controlling heat generated by the block, and (2) said heating blocks are arranged in a vertical direction in one line so that one heating block is disposed adjacent above another block." As noted above, Nied teaches a plurality of independently controlled heating blocks, and the combination of Ohno and Nied suggests to one of ordinary skill in the art the vertical orientation of the heating board with independently controlled heating blocks in at least one line. The "comprising" terminology used in claim 7 is inclusive, or open-ended and does not exclude additional, unrecited elements. See MPEP § 2111.03. Therefore, the heating block arrangement taught by Nied suggests the limitation of the heating blocks being in one line, despite the additional lines of heating blocks as these additional heating blocks are not excluded by the claim language.

Applicant further argues that the Ohno and Nied references do not teach or suggest the advantages noted by Applicants by the arrangement claimed.

The observation of still another beneficial result of an old process or apparatus cannot be form the basis of patentability. See In re Swinehart, 439 F.2d 210, 169 USPQ 226 (Cust. & Pat. App. 1971); In re Maeder, 337 F.2d 875, 143 USPQ 248 (Cust. & Pat. App. 1964). In the instant case, the apparatus as claimed is suggested by the combination of Ohno and Nied for

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the reasons described above. Therefore, the advantages noted by Applicant's cannot form the basis of patentability.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (703) 308-6371. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jan Silbaugh, can be reached at (703) 308-3829. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for responses to non-final action, and 703-872-9311 for responses to final actions. The unofficial fax phone number is (703) 305-3602.

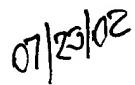
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Donald Heckenberg  
July 15, 2002



JAN H. SILBAUGH  
SUPERVISORY PATENT EXAMINER  
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